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To: [Lori Cora/R10/USEPA/US@EPA](#)
Cc: [Dave Bartus/R10/USEPA/US@EPA](#); [Sean Sheldrake/R10/USEPA/US@EPA](#); [ANDERSON Jim M](#); [BURKHOLDER Kurt](#); [EDELMAN Larry](#)
Subject: NW Natural, DEQ Basis for Applying the Toxicity Characteristic to Commingled MGP Waste & F002 Constituents
Date: 06/03/2009 10:50 AM
Attachments: [EPA-RemedWst&RCRA-Oct98.pdf](#)
[EPA-LDRSoilTreatmentStds-Jul02.pdf](#)
[EPA-ExplainsMGPDdecision.pdf](#)
[WI-HazRemediationWstGuidance.pdf](#)
[FR67_11251-11254.pdf](#)

Hello Lori.

This e-mail responds to your May 27, 2009 e-mail (see below) requesting DEQ's basis for applying the hazardous waste toxicity characteristic (TC) to soil/sediment impacted by MGP waste and F002 constituents, sometimes referred to as "mixed waste" in correspondence. Your e-mail raises a number of points, primarily in the 3rd paragraph, that DEQ will address. EPA documents referenced in the e-mail are attached for your use and information.

Please note, DEQ has not prepared this e-mail as a legal opinion or rigorous regulatory analysis. It is intended to lay-out the general basis for the state's position regarding applying the TC to situations where MGP waste has been impacted by non-MGP sources.

For clarification and to provide a basis for understanding, it's useful to briefly review the general process for making determinations as to whether or not environmental media (e.g., soil, sediment, groundwater, surface water) are hazardous waste and the material management implications.

Evaluating Environmental Media Contaminated by Hazardous Waste

From EPA's standpoint, environmental media are not solid waste, but should media be found to contain hazardous waste they are subject to applicable RCRA requirements. In the case of Gasco, soil/sediment impacted by F002 listed hazardous waste, including soil/sediment also contaminated by MGP waste, detections of F002 chlorinated volatile organic compounds (cVOCs) above the laboratory method reporting limits indicate environmental media and/or environmental media impacted by MGP waste, contain F002 listed hazardous waste. The presence of F002 cVOCs is the trigger for conducting a hazardous waste determination of the media. Consistent with EPA guidance and draft DEQ guidance, the hazardous waste determination consists of two steps that include evaluating whether the environmental media: 1) "contains" a listed hazardous waste, or 2) exhibits one or more characteristics of hazardous waste listed under 40 CFR §261, Subpart C (i.e., toxicity, corrosivity, reactivity, ignitability). See Footnote.

Evaluation of whether contaminated soil/sediment contains a listed hazardous waste relies on a "contained-in determination." EPA guidance recommends that, "...contained-in

determinations be made based on direct exposure using a reasonable maximum exposure scenario and that conservative health-based, standards be used to develop the site-specific health-based levels of hazardous constituents below which contaminated environmental media would be considered to no longer contain hazardous waste.” Regarding the contained-in determination for the Gasco project, to facilitate the project moving forward DEQ has already provided flexibility on certain issues, including: 1) limiting the scope of the determination to F002 cVOCs, and 2) allowing NW Natural to develop contained-in risk-based concentrations (RBCs) versus using DEQ’s “occupational” soil RBCs. See Footnote 2.

Determination of whether contaminated environmental media exhibits one or more characteristics of hazardous waste, relies on laboratory analysis of the impacted media. The Toxicity Characteristic Leaching Procedure (TCLP) is the basis for determining whether or not media exhibits a TC of hazardous waste for any of the hazardous substances listed in Table 1 of 40 CFR §261.24.

Prior to land disposing contaminated soils, federal Land Disposal Restrictions (LDRs) for contaminated soils (see 40 CFR §268.49) apply to: 1) soil/sediment that exhibits a characteristic of hazardous waste, or 2) soil that exhibited a characteristic of hazardous waste when it was generated (see 40 CFR §268.49[a]). Contaminated soil LDRs may also apply to soil/sediment determined to contain listed hazardous waste depending on whether the material contains listed hazardous waste when generated (see 40 CFR §268.49[a]). If LDRs apply, hazardous waste constituents in soil/sediment must be treated to less than Universal Treatment Standards (UTSs) for non-wastewaters specified in 40 CFR §268.48 “Table of UTSs” (see 40 CFR §268.49[c]), or LDR “alternative soil treatment standards” (i.e., 90% reduction in constituent concentrations or 10xUTS, whichever is greater). In addition, underlying hazardous constituents (UHCs) in the contaminated must also be treated. UHCs are defined as any hazardous constituent listed in “Table 1 of UTSs” that might be present in the media at levels exceeding 10x the UTS for that constituent (see 40 CFR §268.49[d]). See Footnote 3.

Reply to EPA’s May 27th E-mail

Your May 27th e-mail (see below) requests DEQ’s “...regulatory basis for the MGP waste losing its exemption when its commingled with neither a listed or characteristic waste.”

Additionally you request information regarding whether DEQ application of TC in this case is a tested application of the regulations or if this is the first time DEQ has applied the determination. As far as DEQ knows, there is no specific federal or state regulatory basis for the situation being discussed. Furthermore, the state’s position regarding applying the TC to soil/sediment impacted by MGP waste and F002 cVOCs has not been previously applied or tested. DEQ is also not aware, nor have we been provided with or been made aware of, the federal or state regulatory basis supporting NW Natural’s interpretation of the TCLP Exclusion as it applies to media impacted by MGP waste and F002 cVOCs.

As you know, MGP waste is not considered a listed hazardous waste, and on March 13, 2002 EPA amended 40 CFR §261.24 to exclude MGP waste from TCLP testing (TCLP Exclusion). The TCLP Exclusion has been incorporated into the state's hazardous waste regulations, however incorporation of the exclusion does not limit DEQ's ability to apply the TC to situations involving MGP waste impacted by non-MGP sources of contamination. The commingling of MGP waste with F002 listed hazardous waste at the Gasco Site is one such situation.

DEQ's regulatory authority to apply the TC to situations where MGP waste is mixed with or contaminated by non-MGP sources, is derived from the state's EPA-delegated RCRA program. Furthermore, specific to the TCLP Exclusion, EPA has indicated that, "...states may have regulations that are broader in scope than the federal regulations, and they may regulate MGP waste as hazardous under their own state requirements. Also, many states regulated MGP cleanup under independent state cleanup program, and state industrial waste requirements may also apply. Therefore, we are encouraging utilities and other parties conducting MGP cleanups to consult with the appropriate state regulatory authorities." Clearly EPA recognizes and defers to the state's authority to oversee sites involving MGP waste, including site cleanups and material management. See Footnote 4.

As indicated above, DEQ does not have existing regulations that specifically address this situation. However, this is due to not having been faced with a project involving: 1) the scale and magnitude of the Gasco Site, and 2) large quantities of MGP waste commingled with listed hazardous waste. However, DEQ's position on the matter is clear and will be the basis for future development of policy/guidance. Furthermore, DEQ's determination that the TC should be applied to MGP waste contaminated by non-MGP sources of contamination is consistent with determinations made by the state of Wisconsin. Similar to Oregon, Wisconsin incorporated the TCLP Exclusion into state regulations, but also determined, "MGP waste that is mixed with or contaminated by other non-MGP sources (i.e., spent solvents) would not be covered by this exclusion." See Footnote 5.

As indicated in numerous previous e-mails, DEQ also finds the regulatory basis for the state's position in the language of the TCLP Exclusion. See Footnote 6. The TCLP Exclusion contains two key points that support DEQ's position regarding applying the TC to soil/sediment impacted by MGP waste and F002 cVOCs.

1. The TCLP Exclusion only applies to MGP waste and soil/debris contaminated by MGP waste. Manufactured gas plants and MGP waste are described under Footnote 1 of FR 67 11252 which is reiterated below.

"Manufactured gas plants are facilities that produced gas from coal or oil for lighting, cooking, and heating during the 1800s until the mid 1900s. No active MGP facilities currently exist, although a range of gas production residues remain at the sites of former MGP facilities. Therefore, the only wastes generated at these sites will be from site remediation. *MGP*

wastes are typically tars, sludges, lampblack, light oils, spent oxide wastes, and other hydrocarbons, and soils and debris contaminated with these materials.” (italics added for emphasis).

Note that EPA’s description of MGP waste makes no reference to non-MGP sources of contamination. It is apparent EPA presumes “the only wastes generated” will be from MGP site remediation, and these wastes will consist of wastes and/or media impacted by historic MGP operations only.

2. The basis for the court’s decision granting the TCLP Exclusion is derived from the following decision (see FR 67 11252): “Regarding MGP waste, the court found that EPA produced insufficient evidence that co-disposal of MGP waste from remediation sites with municipal solid waste (MSW) has happened or is likely to happen.”

DEQ considers this point important and relevant because NW Natural currently intends to land dispose all impacted soil/sediment generated during the in-water action, including at Oregon Subtitle D landfill(s) (Subtitle D LF), a situation that contradicts the court’s finding.

In short, NW Natural wants to apply the TCLP exclusion as broadly as possible although MGP waste is commingled with F002 listed hazardous waste (i.e., contradicts presumption contamination is limited to MGP waste), and potentially large quantities of contaminated material are going to be land disposed either in a Subtitle D landfill or a Subtitle C facility (i.e., contradicts finding that MGP waste is unlikely to be co-disposed with MSW).

Lori, in addition to the discussion above DEQ considers it important not to lose sight of the fact, we are in the earliest stages of planning in-water and uplands removal/remedial action projects. The information needed to make informed decisions regarding material management for these projects (e.g., volume of impacted material, volume of commingled material, magnitude of contamination, estimates of the quantities of material to be land disposed at a Subtitle C facility or Subtitle D LF) is currently unknown. The SOW provides for collecting this information during investigations designed to identify and address data gaps. Expanding the TCLP exclusion to include soil/sediment impacted by MGP waste and F002 constituents is not warranted, unnecessarily expands NW Natural's ability to dispose of material without treatment in a state-permitted Subtitle C facility, and could have additional unforeseen consequences on this and future projects in the state. See Footnote 7.

Please don’t hesitate to contact us with questions regarding this e-mail, or if you need additional information.

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Footnote. EPA, 1998, "Management of Remediation Waste Under RCRA," October (EPA530-F-98-026), see page 9.

<<EPA-RemedWst&RCRA-Oct98.pdf>>

Footnote 2. In a letter dated March 27, 2008, DEQ indicated the contained-in determination for environmental media impacted by MGP waste and F002 cVOCs should include F002 and MGP constituents. In other words, if the detected concentrations of F002 or MGP constituents exceeded RBCs, then the material would be designated and managed as hazardous waste. The contained-in determination now focuses on F002 cVOCs. Also, DEQ is now allowing NW Natural to develop project-specific RBCs for a landfill land-use scenario rather than using "occupational" RBCs as indicated by DEQ in previous draft SOWs.

Footnote 3. EPA, 2002, "Guidance on Demonstrating Compliance With Land Disposal Restrictions (LDR) Alternative Soil Treatment Standards – Final Guidance," July (EPA530-R-02-003).

<<EPA-LDRSoilTreatmentStds-Jul02.pdf>>

Footnote 4. EPA, "Implementation of Vacature of TCLP Use for Evaluating Manufactured Gas Plant (MGP Waste in the *Battery Recyclers Case*," a memorandum from Elizabeth Cotsworth, Director – Office of Solid Waste, to RCRA Senior Policy Advisors and RCRA/Waste Enforcement Program Managers, Regions I-X.

<<EPA-ExplainsMGPDDecision.pdf>>

Footnote 5. Wisconsin Department of Natural Resources, Bureaus for Remediation and Redevelopment and Waste Materials Management, 2006, "Guidance for Hazardous Waste Remediation – RR 705," May (see page 10).

<<WI-HazRemediationWstGuidance.pdf>>

Footnote 6. Federal Register/vol. 67, No. 49/ pages 11251-11254/March 13, 2002.

<<FR67_11251-11254.pdf>>

Footnote 7. The specific issue being discussed involves soil/sediment impacted by MGP waste and F002 cVOCs; two sources of contamination that are chemically distinct. However, MGP waste is comprised of solid, semi-solid, and liquid materials, and environmental media mixed in varying proportions, containing complex assemblages of inorganic analytes and organic chemicals. DEQ believes the material management decisions facing state Cleanup Program Project Managers becomes more complicated and contentious where MGP waste is impacted by non-MGP sources, including hazardous waste, that include contaminants found in the MGP waste (i.e., situations where hazardous waste constituents and constituents of MGP waste are not chemically distinct and difficult to

distinguish).

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----- Original Message -----

From: Cora.Lori@epamail.epa.gov <Cora.Lori@epamail.epa.gov>

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BAYUK Dana; ANDERSON Jim M; BURKHOLDER Kurt

Sent: Wed May 27 12:21:05 2009

Subject: MGP-waste and when it loses its exemption from the
definition of characteristic waste

Hello, Everyone. As you know, there have been long and protracted discussions with NW Natural concerning waste characterization issues related to sediment contaminated with MGP waste and CVOCs from

Siltronic's process (F002 waste). I've talked with Patty Dost and NW

Natural still does not agree with the position that if the CVOCs are not a listed waste (due to a contained out determination) and do not fail TCLP as a characteristic waste, the MGP waste still loses its exemption from the definition of characteristic waste and would have to be determined to be hazardous waste for disposal purposes. As you know, NW Natural has agreed that sediment that fails TCLP for MGP waste will be disposed of in a Subtitle C

landfill as "Special Waste." There is no argument that if MGP waste is commingled with listed waste, all of the dredged sediment would be a listed hazardous waste.

I don't understand the regulatory basis for the MGP waste losing its exemption when its commingled with neither a listed or characteristic waste. Can you state folks walk me through the regulations that get us to that result? Patty claims she has not gotten a clear articulation as to the regulatory basis for this position. If DEQ has provided that, could you provide it to Sean and I? Please let us know if this is a tested application of the regs. or if this is the first time you have applied the regs in this way.

If this issue can't get worked out soon, Sean and I would prefer that this particular scenario and waste characterization situation be taken out of the SOW. We would say that the issue is an open issue and will be resolved during the EE/CA process. I don't think NW Natural will be happy but it would be hard for them to articulate why they can't sign the AOC and move forward as our AOC is not requiring them to perform work or dispose of anything. Would the state be ok with that approach?

Nonetheless, it would be best overall if this disagreement could be resolved. If there is a clear regulatory basis for determining when and under what circumstances MGP waste loses its exemption from the definition of characteristic waste under RCRA, then the state should be able to convince NW Natural to move on under that analysis.

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